INVENTOR SEARCH

```
=> fil casre; d que nos l30
FILE 'CASREACT' ENTERED AT 11:19:12 ON 13 DEC 2007
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26, 1996), unless otherwise indicated in the original publications.

FILE CONTENT:1840 - 8 Dec 2007 VOL 147 ISS 25

New CAS Information Use Policies, enter HELP USAGETERMS for details.

************************************************************
*                                                          *
*     CASREACT now has more than 13.8 million reactions    *
*                                                          *
************************************************************

Some CASREACT records are derived from the ZIC/VINITI database (1974-1999)
provided by InfoChem, INPI data prior to 1986, and Biotransformations
database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance
identification.


L7              STR
L10             STR
L11             STR
L12             STR
L13             STR
L14             STR
L15             STR
L18        1017 SEA FILE=CASREACT SSS FUL (L10 OR L11 OR L12 OR L13 OR L14 OR
                    L15) NOT L7 (  7766 REACTIONS)
L19         957 SEA FILE=CASREACT ABB=ON  L18/COMPLETE
L21          29 SEA FILE=CASREACT ABB=ON  SHCHERBAKOVA I?/AU
L22           0 SEA FILE=CASREACT ABB=ON  BALANDRIA M?/AU
L23         101 SEA FILE=CASREACT ABB=ON  HUANG G?/AU
L24           5 SEA FILE=CASREACT ABB=ON  GEOFFROY O?/AU
L25         116 SEA FILE=CASREACT ABB=ON  FOX J?/AU
L26          50 SEA FILE=CASREACT ABB=ON  NAIR S?/AU
L29           7 SEA FILE=CASREACT ABB=ON  BALANDRIN M?/AU
L30           3 SEA FILE=CASREACT ABB=ON  (L21 OR L22 OR L23 OR L24 OR L25 OR
                    L26 OR L29) AND L19


=> d ibib abs fhit l30 1-3


L30  ANSWER 1 OF 3  CASREACT  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         143:59927  CASREACT  Full-text
TITLE:                    Design, new synthesis, and calcilytic activity of
                          substituted 3H-pyrimidin-4-ones
AUTHOR(S):                Shcherbakova, Irina; Huang, Guangfei
                          ; Geoffroy, Otto J.; Nair, Satheesh
```
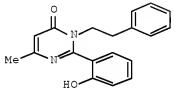
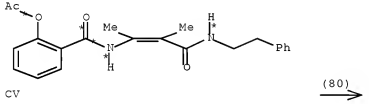

K.; Swierczek, Krzysztof; Balandrin, Manuel F.; Fox, John; Heaton, William L.; Conklin, Rebecca L.
CORPORATE SOURCE: Drug Discovery, NPS Pharmaceuticals, Inc., Salt Lake City, UT, 84108, USA
SOURCE: Bioorganic & Medicinal Chemistry Letters (2005), 15(10), 2537-2540
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB Design, synthesis, structure-activity relationship studies and calcium receptor antagonist (calcilytic) properties of 3H-pyrimidin-4-ones, e.g., I, are described. The pyrimidinones were synthesized by multistep procedures.

RX(80) OF 424 ...CV ===> DH



CV

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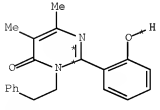

DH
YIELD 70%

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RX(80)     RCT  CV 780771-39-3
           RGT  U 1310-58-3 KOH
           PRO  DH 780771-35-9
           SOL  7732-18-5 Water, 64-17-5 EtOH
           CON  12 hours, reflux
REFERENCE COUNT:          30    THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT


L30  ANSWER 2 OF 3  CASREACT  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         141:379934  CASREACT  Full-text
TITLE:                    Preparation of 2,3,5,6-tetrasubstituted
                          3H-pyrimidin-4-ones via cyclization of carboxamides.
INVENTOR(S):              Shcherbakova, Irina; Balandrin,
                          Manuel; Huang, Guangfei; Geoffroy,
                          Otto; Fox, John; Nair, Satheesh
                          K.
PATENT ASSIGNEE(S):       NPS Pharmaceuticals, Inc., USA
SOURCE:                   PCT Int. Appl., 33 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.       KIND  DATE          APPLICATION NO.  DATE
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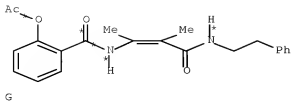
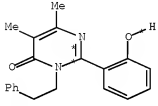
     WO 2004092121     A2   20041028      WO 2004-US10639  20040407
     WO 2004092121     A3   20050414
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
             ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
             SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
             TD, TG
     EP 1613606        A2   20060111      EP 2004-749815   20040407
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
     JP 2006522160     T    20060928      JP 2006-509759   20040407
     US 2007161792     A1   20070712      US 2006-551920   20061120
PRIORITY APPLN. INFO.:                   US 2003-460859P  20030407
                                         US 2003-479323P  20030618
                                         WO 2004-US10639  20040407
OTHER SOURCE(S):          MARPAT 141:379934
AB   The title process is claimed.  Thus, 3-(2-acetoxybenzoylamino)-2-methylbut- 2-
     enoic acid phenethylamide (preparation given) was refluxed overnight with KOH
     in EtOH/H2O to give 37% 2-(2-hydroxyphenyl)-5,6-dimethyl-3-phenethyl-3H-
     pyrimidin-4-one.



RX(2) OF 57      ...G  ===>  H
```





YIELD 37%

RX(2) RCT G 780771-39-3

STAGE(1)
RGT I 1310-58-3 KOH
SOL 7732-18-5 Water, 64-17-5 EtOH
CON SUBSTAGE(1) overnight, reflux
SUBSTAGE(2) cooled

STAGE(2)
RGT D 7647-01-0 HCl
SOL 7732-18-5 Water
CON pH 1

PRO H 780771-35-9

L30 ANSWER 3 OF 3 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 141:366249 CASREACT Full-text
TITLE: Preparation of pyrimidinone compounds as calcilytics
INVENTOR(S): Shcherbakova, Irina V.; Balandrin, Manuel F.; Huang, Guangfei; Geoffroy, Otto; Foz, John; Marquis, Robert; Yamashita, Dennis Shinji; Luengo, Juan; Wang, Wenyong
PATENT ASSIGNEE(S): NPS Pharmaceuticals, Inc., USA; Glaxosmithkline
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004092120	A2	20041028	WO 2004-US10638	20040407

WO 2004092120 A3 20050414
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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2004230903	A1	20041028	AU 2004-230903	20040407	
CA 2521129	A1	20041028	CA 2004-2521129	20040407	
EP 1615897	A2	20060118	EP 2004-749814	20040407	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR					
CN 1835928	A	20060920	CN 2004-80009255	20040407	
JP 2006522159	T	20060928	JP 2006-509758	20040407	
MX 2005PA10683	A	20060801	MX 2005-PA10683	20051004	
US 2007197555	A1	20070823	US 2006-552363	20061120	
PRIORITY APPLN. INFO.:			US 2003-460859P	20030407	
			US 2003-479323P	20030618	
			WO 2004-US10638	20040407	

OTHER SOURCE(S): MARPAT 141:366249

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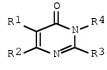
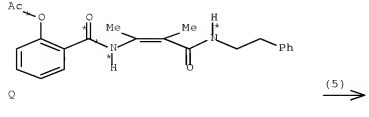


I

AB Title compds. I [R1-2 = H, halo, CN, CF3, etc.; R3 = aryl; R4 = H, alkyl, etc.] are prepared For instance, 2-(2-Hydroxyphenyl)-6-methyl-3-phenethyl-3H-pyrimidin-4-one is prepared from o-hydroxybenzonitrile, acetyl chloride and Me acetoacetate. Compds. of the invention have IC50 values < 30 μM in a calcium receptor inhibition assay. I are useful for the treatment of abnormal bone or mineral homeostasis.

RX(5) OF 72 ...Q ===> F



Q

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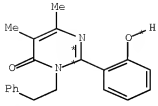

R
YIELD 37%

RX(5) RCT Q 780771-39-3

STAGE(1)
RGT S 1310-58-3 KOH
SOL 7732-18-5 Water, 64-17-5 EtOH
CON SUBSTAGE(1) overnight, reflux
SUBSTAGE(2) cooled

STAGE(2)
RGT K 7647-01-0 HCl
SOL 7732-18-5 Water
CON pH 1

PRO R 780771-35-9

REACTION SEARCH

```
=> fil casre; d stat que l35; d stat que l40; s l35,l40 not l30
FILE 'CASREACT' ENTERED AT 11:19:46 ON 13 DEC 2007
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FILE CONTENT:1840 - 8 Dec 2007 VOL 147 ISS 25

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************************************************************
*                                                          *
*     CASREACT now has more than 13.8 million reactions    *
*                                                          *
************************************************************

Some CASREACT records are derived from the ZIC/VINITI database (1974-1999)
provided by InfoChem, INPI data prior to 1986, and Biotransformations
database compiled under the direction of Professor Dr. Klaus Kieslich.

This file contains CAS Registry Numbers for easy and accurate substance
identification.

L7              STR
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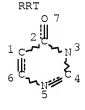

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS   7

STEREO ATTRIBUTES: NONE
L10             STR
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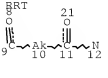

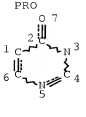

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

****MAPPINGS****

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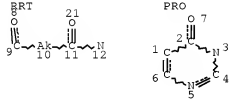
L11 STR



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NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

****MAPPINGS****

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12	N	RRT	5	N	PRO

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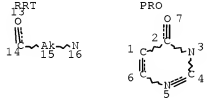

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

****MAPPINGS****

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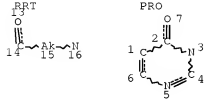
L13 STR



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

****MAPPINGS****

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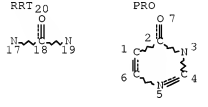

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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

****MAPPINGS****

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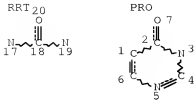
19	N	RRT	3	N	PRO

L15 STR



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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

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   ****MAPPINGS****
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  5 N         PRO     19 N        RRT
 19 N         RRT      5 N        PRO
L18         1017 SEA FILE=CASREACT SSS FUL (L10 OR L11 OR L12 OR L13 OR L14 OR
                 L15) NOT L7 (  7766 REACTIONS)
L31              STR
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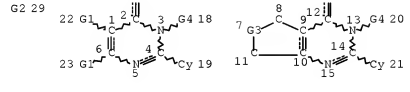

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VAR G4=H/24/25/28
REP G5=(0-1) CH2
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DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 19
GGCAT IS UNS AT 21
GGCAT IS LOC AT 24
GGCAT IS UNS AT 27
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE

L35 13 SEA FILE=CASREACT SUB=L18 SSS FUL L31 (67 REACTIONS)

100.0% DONE 7766 VERIFIED 67 HIT RXNS 13 DOCS
SEARCH TIME: 00.00.01

L7 STR

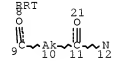
RRT

NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE
L10 STR

RRT



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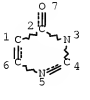

NODE ATTRIBUTES:
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

MAPPINGS

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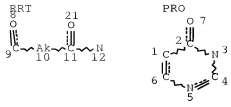
12	N	RRT	3	N	PRO

L11 STR



NODE ATTRIBUTES:
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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

****MAPPINGS****

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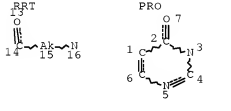

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DEFAULT ECLEVEL IS LIMITED

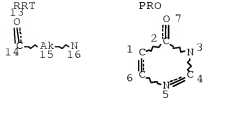
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

****MAPPINGS****

NOD	SYM	ROL	NOD	SYM	ROL
3	N	PRO	16	N	RRT
16	N	RRT	3	N	PRO

L13 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

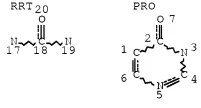
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

****MAPPINGS****

NOD	SYM	ROL	NOD	SYM	ROL
5	N	PRO	16	N	RRT
16	N	RRT	5	N	PRO

L14 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

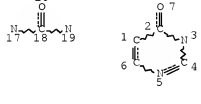
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

****MAPPINGS****

NOD	SYM	ROL	NOD	SYM	ROL
3	N	PRO	19	N	RRT
19	N	RRT	3	N	PRO

L15 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

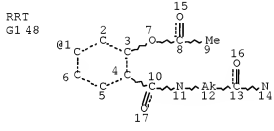
****MAPPINGS****

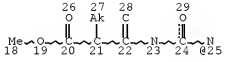
NOD	SYM	ROL	NOD	SYM	ROL
5	N	PRO	19	N	RRT
19	N	RRT	5	N	PRO

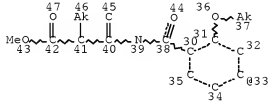
L18 1017 SEA FILE=CASREACT SSS FUL (L10 OR L11 OR L12 OR L13 OR L14 OR L15) NOT L7 (7766 REACTIONS)

L37 STR

RRT
G1 48







VAR G1=1/25/33
NODE ATTRIBUTES:
CONNECT IS E2 RC AT 12
CONNECT IS E1 RC AT 27
CONNECT IS E1 RC AT 37
CONNECT IS E1 RC AT 46
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 12
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 48

STEREO ATTRIBUTES: NONE
L40 4 SEA FILE=CASREACT SUB=L18 SSS FUL L37 (13 REACTIONS)

100.0% DONE 87 VERIFIED 13 HIT RXNS 4 DOCS
SEARCH TIME: 00.00.01

L46 10 (L35 OR L40) NOT L30

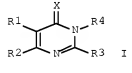
=> d ibib abs fhit l46 1-10; fil hom

L46 ANSWER 1 OF 10 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 143:477975 CASREACT Full-text

TITLE: Preparation of pyrimidinones and quinazolinones as calcilytic compounds
INVENTOR(S): Luengo, Juan I.; Marquis, Robert W., Jr.; Xie, Ren; Yamashita, Dennis S.
PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005108376	A1	20051117	WO 2005-US15224	20050503
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1742924	A1	20070117	EP 2005-744198	20050503
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR, LV				
US 2007232628	A1	20071004	US 2006-568709	20061106
PRIORITY APPLN. INFO.:			US 2004-568585P	20040506
			WO 2005-US15224	20050503

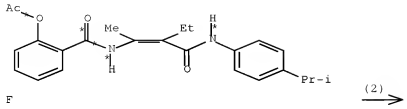
OTHER SOURCE(S): MARPAT 143:477975
GI



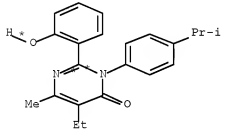
I

AB The title compds. I [R1, R2 = H, halo, CN, etc.; or R1 and R2 may be bonded together to form a carbocyclic, heterocylic, aryl or heteroaryl ring; R3 = aryl or heteroaryl group which may have 1-5 substituents each selected from H, halo, CN, CF3, etc.; R4 = aryl which may have 1-3 substituents consisting of H, halo, CN, CF3, etc.; X = O or S], useful for treating a disease or disorder characterized by an abnormal bone or mineral homeostasis, were prepared E.g., a multi-step synthesis of 2-(2-hydroxyphenyl)-3-(4-isopropylphenyl)-5,6,7,8-tetrahydro-3H-quinazolin- 4-one, starting from Et 2-aminocyclohex-1-enecarboxylate and 2-benzyloxybenzoyl chloride, was given. The methods for treating diseases or disorders such as osteosarcoma, periodontal disease, fracture healing, osteoarthritis, joint replacement, rheumatoid arthritis, Paget's disease, humoral hypercalcemia, malignancy and osteoporosis by administering the compound I alone or in combination with anti-resorptive agents are disclosed.

RX(2) OF 83 ...F ===> G



F



G

RX(2) RCT F 920264-52-4

STAGE(1)
RGT H 1310-58-3 KOH
SOL 7732-18-5 Water, 64-17-5 EtOH
CON SUBSTAGE(1) 5 hours, room temperature -> reflux
SUBSTAGE(2) reflux -> room temperature

STAGE(2)
RGT I 7647-01-0 HCl
SOL 7732-18-5 Water
CON room temperature, pH 1

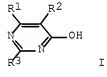
PRO G 869564-58-9
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 2 OF 10 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 112:55906 CASREACT Full-text
TITLE: Process for preparing 4-hydroxypyrimidines as drug and agrochemical intermediates
INVENTOR(S): Ataka, Kikuo; Omori, Kiyoshi
PATENT ASSIGNEE(S): Ube Industries, Ltd., Japan
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 326389	A2	19890802	EP 1989-300768	19890126
EP 326389	A3	19911113		
EP 326389	B1	19960911		
R: CH, DE, FR, GB, IT, LI				
JP 01279874	A	19891110	JP 1988-323436	19881223
JP 06025157	B	19940406		
US 4935516	A	19900619	US 1989-300612	19890123

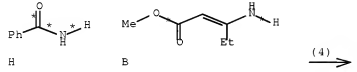
PRIORITY APPLN. INFO.: JP 1988-17239 19880129
OTHER SOURCE(S): MARPAT 112:55906
GI



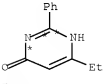
I

AB The title compds. I (R1, R2 = H, C1-10 alkyl, C3-10 cycloalkyl, etc.; R3 = C7-10 alkyl, C3-10 cycloalkyl, etc.), useful as drug and agrochem. intermediates, were prepared by condensation of aminoalkenoates with amides. A mixture of Me 3-amino-2-pentenoate, HCONH2, and MeONa was heated for 3 h at 110° to give 91.9 mol% 6-ethyl-4-hydroxypyrimidine.

RX(4) OF 6 H + B ===> I



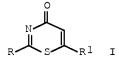
H B (4)



I
YIELD 81%

RX(4) RCT H 55-21-0, B 124413-61-2
PRO I 82501-10-4

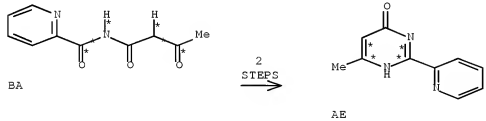
L46 ANSWER 3 OF 10 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 100:6431 CASREACT Full-text
TITLE: 1,3-Oxazines and related compounds. VI. Synthesis and some reactions of 2,6-disubstited 4H-1,3-thiazin-4-ones
AUTHOR(S): Yamamoto, Yutaka; Ohnishi, Shuhei; Azuma, Yutaka
CORPORATE SOURCE: Tohoku Coll. Pharm., Sendai, 983, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1983), 31(6), 1929-35
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB 2,6-Disubstituted 4H-1,3-thiazin-4-ones I (R = alkyl, Ph, pyridyl; R1 = alkyl, CH2Ph) were synthesized by successive treatment of RCONHCOCH2COR1 with acid, such as 70% HClO4 or FSO3H and H2S. Ammonolysis of I with NH3-EtOH gave the corresponding pyrimidin-4-ones; hydrolysis of 2-alkyl-1,3-thiazine derivs. yielded RCONHCOCH:CR1SH reduction with NaBH4 or LiAlH4 afforded 3,4-dihydro-2H-1,3-thiazin-4-one derivs.

RX(62) OF 63 COMPOSED OF RX(26), RX(10)
RX(62) BA ===> AE



BA

2 STEPS

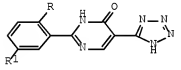
AE

RX(26) RCT BA 82437-55-6
RGT M 7783-06-4 H2S, H 497-19-8 Na2CO3, N 7789-21-1 HSO3F
PRO Y 88136-80-5
CAT 144-55-8 NaHCO3

RX(10) RCT Y 88136-80-5
RGT Q 1336-21-6 NH4OH
PRO AE 55417-80-6

CAT 64-17-5 EtOH

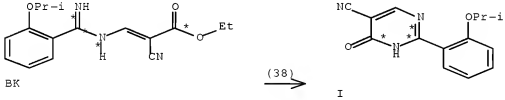
L46 ANSWER 4 OF 10 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 97:155925 CASREACT Full-text
TITLE: Antiallergy agents. 2. 2-Phenyl-5-(1H-tetrazol-5-yl)pyrimidin-4(3H)-ones
AUTHOR(S): Juby, Peter F.; Hudyma, Thomas W.; Brown, Myron; Essery, John M.; Partyka, Richard A.
CORPORATE SOURCE: Bristol Lab., Div. Bristol-Myers Co., Syracuse, NY, 13201, USA
SOURCE: Journal of Medicinal Chemistry (1982), 25(10), 1145-50
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB I (R = alkoxy, OCH2CH:CH2, or cyclopropylmethoxy; R1 = H, OMe, NO2, NH2, or NMe2) were prepared and found to be about 5-10 times more potent than the corresponding pyrimidine-5-carboxylic acids when tested orally against passive cutaneous anaphylaxis in the rat. Structure-activity relations within the two series are similar. I (R = OPr, R1 = H) [64634-09-9] is in clin. trial for the prophylactic treatment of asthma.

RX(38) OF 80 BK ===> I...



BK

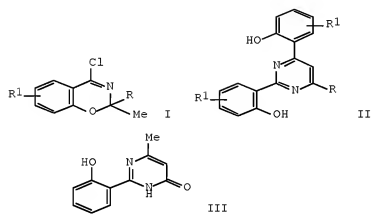
I

RX(38) RCT BK 64634-07-7
PRO I 64661-66-1
SOL 67-68-5 DMSO

L46 ANSWER 5 OF 10 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 97:55759 CASREACT Full-text
TITLE: Studies on 1,3-benzoxazines. VII. Formation of diphenylpyrimidines by the reaction of

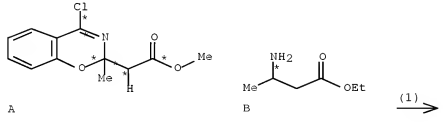
4-chloro-2H-1,3-benzoxazines with ethyl 3-aminobutyrate

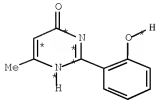
AUTHOR(S): Tachikawa, Ryuji; Wachi, Kazuyuki; Terada, Atsusuke
CORPORATE SOURCE: Cent. Res. Lab., Sankyo Co., Ltd., Tokyo, 140, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1982), 30(2), 564-8
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB Treatment of chlorobenzoxazines I (R = Me, R1 = H, 5-MeO, 4-Cl, 5-Cl; R = Et, R1 = H; R = Ph, R1 = H) with H2NCHMeCH2CO2Et gave pyrimidine derivs. II. When 4-chloro-2-methyl-2-methoxycarbonylmethyl-2H-1,3-benzoxazine was treated with H2NCHMeCH2CO2Et, a pyrimidone derivative III was isolated. A possible mechanism for the formation of these reaction products is discussed.

RX(1) OF 5 ...A + B ===> C

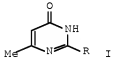




C

RX(1) RCT A 82507-98-0, B 5303-65-1
PRO C 76467-22-6

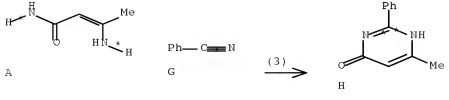
L46 ANSWER 6 OF 10 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 95:24980 CASREACT Full-text
TITLE: Reaction of 3-aminocrotonamide with nitriles
AUTHOR(S): Kato, Tetsuzo; Chiba, Takuo; Sasaki, Makoto
CORPORATE SOURCE: Pharm. Inst., Tohoku Univ., Sendai, 980, Japan
SOURCE: Heterocycles (1981), 16(4), 577-80
CODEN: HTCYAM; ISSN: 0385-5414
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB Reaction of 3-aminocrotonamide with RCN (R = Me, Et, Me2CH, Ph) in MeOH in the presence of NaOMe gave I (same R) in 18-44% yields. Also, reaction of PhCH2CN with 3-aminocrotonamide gave 2-benzyl-6-methyl-4(3H)-pyrimidone and 6-amino-4-methyl-5-methyl-2(1H)-pyridone. Reaction of malononitrile with 3-aminocrotonamide gave 6-amino-5-cyano-4-methyl-2(1H)-pyridone.

RX(3) OF 7 A + G ===> H



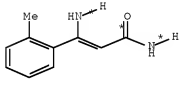
A G (3) H

RX(3) RCT A 15846-25-0, G 100-47-0
PRO H 13514-79-9

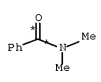
CAT 124-41-4 NaOMe

L46 ANSWER 7 OF 10 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 91:39426 CASREACT Full-text
TITLE: Synthetic plant growth regulators. The synthesis of C-o-carboxyphenyl derivatives of pyrimidine
AUTHOR(S): Harris, Roger L. N.; Huppatz, John L.; Teitei, Tsutomu
CORPORATE SOURCE: Div. Plant Ind., CSIRO, Canberra, 2601, Australia
SOURCE: Australian Journal of Chemistry (1979), 32(3), 669-79
CODEN: AJCHAS; ISSN: 0004-9425
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Synthetic routes to o-carboxyphenyl derivs. of pyrimidine, required for testing as potential plant growth regulators, are described. 2-(4-Phenylpyrimidin-2-yl)benzoic acid, 2-(2-phenylpyrimidin-4-yl)benzoic acid, and 2-(2-phenylpyrimidin-5-yl)benzoic acid were prepared by utilizing amide-acid chloride intermediates in the generation of the pyrimidine ring in each instance.

RX(34) OF 57 COMPOSED OF RX(10), RX(12)
RX(34) R + S ===> U

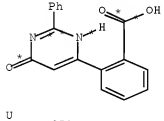


R



S

2
STEPS

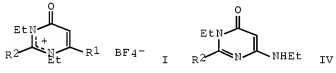


U
YIELD 25%

RX(10) RCT R 70484-37-6, S 611-74-5
PRO Q 70484-36-5

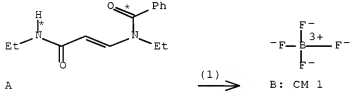
RX(12) RCT Q 70484-36-5
RGT K 10588-01-9 Na2Cr2O7
PRO U 343623-44-9

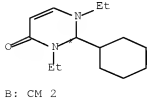
L46 ANSWER 8 OF 10 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 87:5899 CASREACT Full-text
TITLE: Pyrimidines. LIX. Ring transformations of heterocyclic compounds with nucleophiles. Part XVI. Degenerate ring transformations of 1,3-diethyl-1,4(3,4)-dihydro-4-oxopyrimidinium tetrafluoroborates with ammonia
AUTHOR(S): Oostveen, E. A.; Van der Plas, H. C.
CORPORATE SOURCE: Lab. Org. Chem., Agric. Univ. Wageningen, Wageningen, Neth.
SOURCE: Recueil des Travaux Chimiques des Pays-Bas (1977), 96(3), 68-72
CODEN: RTCPA3; ISSN: 0165-0513
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB Treatment of the pyrimidinium tetrafluoroborates I (R1 = H, Me, Ph, OEt; R2 = H, Ph, Me) with aqueous NH3 or NH3(l) gave R2CONEtCOCH:CR1NHEt (II) and EtNHCOCH:CR1NEtCOR2 (III) via cleavage of the N(1)-C(2) or N(3)-C(2) bond, resp. However, in the case of I (R1 = OEt), II or III recycled with NH3(l) with elimination of EtOH to give the ethylaminopyrimidinones IV.

RX(1) OF 17 ...A ===> B

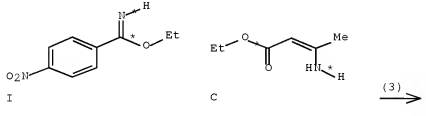




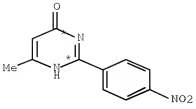
RX(1) RCT A 343879-52-7
PRO B 62380-05-1
CAT 16872-11-0 HBF4

L46 ANSWER 9 OF 10 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 66:55438 CASREACT Full-text
TITLE: Reactions with trifluorochloroethylene. II. Addition of trifluorochloroethylene to imidazole, benzimidazole, and naphthimidazole--a new cleavage of the imidazole ring
AUTHOR(S): Ried, Walter; Lohwasser, Hermann
CORPORATE SOURCE: Univ. Frankfurt, Frankfurt, Germany
SOURCE: Justus Liebigs Annalen der Chemie (1966), 699, 88-97
CODEN: JLACBF; ISSN: 0075-4617
DOCUMENT TYPE: Journal
LANGUAGE: German
AB cf. CA 66, 28568c. The title compds. were alkylated on the N atom by CF2:CClF (I) under pressure at elevated temps. without a catalyst. The trifluorochloroethyl group makes the imidazole ring of the 1:1 adducts accessible to nucleophilic attack, which leads to a ring cleavage. A novel aldehyde synthesis and a triazole synthesis are described. The alkylations with I without catalyst proceeded in a few hrs. at temps. over 100° under the vapor pressure of the solution in absolute tetrahydrofuran (THF). Expts. with 10-80 g. compound were carried out in a 0.5-1 steel autoclave. Into the reaction chamber precooled with dry ice were introduced the intensely cooled solvent, the reacting compound with some hydroquinone, and the weighed liquefied I together with the cooling trap used for the condensation, in to bind the liberated HF from side reactions. On heating the autoclave, the pressure did not rise above 30 kg./cm.2 Benzimidazole (35 g.), 200 cc. THF, and 53 g. I heated 5 hrs. at 130-40° gave 61 g. N-(1,1,2-trifluoro-2-chloroethyl)benzimidazole.

RX(3) OF 3 I + C ===> J



I C



J
YIELD 69%

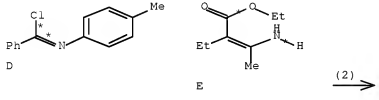
RX(3) RCT I 831-68-5, C 626-34-6
PRO J 13514-80-2
SOL 7732-18-5 Water
NTE Classification: Heterocycle formation; Condensation; Isomerisation; C-Amination; # Conditions: H2O 50-60 deg 2 days

L46 ANSWER 10 OF 10 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 51:39274 CASREACT Full-text
TITLE: Synthesis of 2,3,5,6-substituted 4-pyrimidones
AUTHOR(S): Staskun, Benjamin; Stephen, Henry
CORPORATE SOURCE: Univ. Witwatersrand Johannesburg, S. Afr.
SOURCE: Journal of the Chemical Society (1956) 4708-10
CODEN: JCSOA9; ISSN: 0368-1769
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

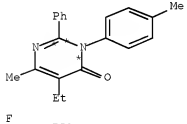
AB 2,3,5,6-Substituted 4-pyrimidones (I) were readily synthesized by condensation of imidoyl chlorides (II) with Me or Et α-alkyl-β- aminocrotonates (III). The following general procedure was used: II (0.01 mole) and III (0.005, 0.01, or 0.02 mole) were refluxed 3-4 hrs. in 40 cc. dry CHCl3 (method A) or allowed to remain at room temperature 2-3 days (method B). In some cases II and III were heated in the absence of a solvent (method C), HCl and alc. being evolved. The products were acidified with dilute HCl and steam distilled; this hydrolyzed any unchanged ester to steam volatile or H2O soluble products, and converted unchanged II to the amide. After cooling, the latter was removed, and the filtrate treated with C and NH3 deposited crude I which crystallized from dilute MeOH or alc. in colorless needles. The following I were prepared by the above methods (R and R substituents in II (RCCl:NR'), R'' and X in III (MeC(NH2):CR''CO2X), molar ratio II:III, method, reaction temperature, reaction time in hrs., % yield, and m.p. given): Ph, Ph, Me, Me, 1:1, C, 140°, 0.5, -, -; Ph, Ph, Me, Et, 1:1, C, 140°, 0.5, 45, 157°; Ph, Ph, Et, Et, 1:2, A, -, 4, 79, 159°; Ph, o-C6H4Me, Me, Me, 1:1, A, -, 3, 53, 114°; Ph, o-C6H4Me, Et, Et, 1:2, A, -, 4, 80, 152°; Ph, m-C6H4Me, Me, Me, 1:1, C, 100°, 0.5, 31, 129°; Ph, m-C6H4Me, Me, Et, 1:1, C, 100°, 0.5, 28, -; Ph, m-C6H4Me, Et, Me, 1:1, C, 100°, 0.5, 77, 136°; Ph, m-C6H4Me, Et, Et, 1:2, A, -, 3, -, -; Ph, p-C6H4Me, Me, Me, 1:2, A, -, 3, 77, 146°; Ph, p-C6H4Me, Et, Et, 1:2, B, -, 3, 75, 152°; Ph, 2,4,1-Me2C6H3, Me, Me, 2:1, A, -, 3, 83, 152°; Ph, 2,4,1-Me2C6H3, Me, Et, 2:1, A, -, 3, -, -; Ph, 2,4,1-Me2C6H3, Et, Et, 2:1, A, -, 3, 83, 146°; Ph, p-MeOC6H4, Et, Et, 1:2, B, -, 3, 81, 161°; Ph, p-MeOC6H4, Pr, Me, 1:2, C, 155°, 0.5, 55, 163°; Ph, m-O2NC6H4, Me, Me, 1:2, C, 140°, 0.5, 62, 159°; Ph, m-O2NC6H4, Me, Et, 1:2, C, 140°, 0.5, 34, -; Ph, m-O2NC6H4, Et, Me, 1:2, C, 140°, 0.5, 24, 160°; Ph, m-O2NC6H4, Et, Et, 1:2, C, 140°, 0.5, 38, -; Ph, 1-C10H7, Me, Et, 1:2, A, -, 3, 64, 174°; Ph, 2-C10H7, Me, Et, 1:2, A, -, 3, 50, 189°; Ph, 2-C10H7, Et, Et, 1:2, A, -, 3, 40, 184°; Ph, o-C6H4Cl, Me, Et, 2:1, A, -, 3, 13, 151°; Ph, o-C6H4Cl, Et, Et, 2:1, C, 170°, 0.5, 32, 192°; Ph, m-C6H4Cl, Me, Me, 1:1, C, 150°, 0.5, 35, 152°; Ph, p-

C6H4Cl, Et, Et, 1:2, C, 185°, 0.5, 59, 148°; Ph, p-C6H4Cl, Pr, Me, 1:2, C, 185°, 0.5, 37, 154°; Ph, Et, Et, Et, 1:2, B, -, 3, 73, 82°; Ph, Et, Me, Et, 1:2, B, -, 3, 51, 118°; o-C6H4Me, Ph, Me, Me, 2:1, A, -, 3, 80, 112°; o-C6H4Me, Ph, Et, Et, 2:1, A, -, 3, 74, 137°; p-C6H4Cl, Ph, Et, Et, 1:2, C, 155°, 0.5, 67, 146°; p-C6H4Cl, Ph, Pr, Me, 1:2, C, 155°, 0.5, 21, 151°; 3,4,5-(MeO)3C6H2, Ph, Me, Me, 1:2, A, -, 3, 20, 181°; 3,4,5-(MeO)3C6H2, Ph, Et, Et, 1:2, A, -, 3, 37, 129°. The synthesis of I was modified by preparing II by rearrangement of ketoximes (IV) with PCl5. The following procedures were used. A solution of IV (0.01 mole) in 50 cc. CHCl3 was treated at 0° with 0.01 mole PCl5, the whole shaken 1-2 min., and the solution treated by one of the following procedures. The solution refluxed 15 min. to complete the rearrangement of IV, the III (0.02-0.03 mole) added in 10 cc. CHCl3, and reflux continued 2-3 hrs. (method D). Alternatively, the solution after remaining 2 hrs. at room temperature was cooled to 10°, the III (0.02-0.03 mole) in 10 cc. CHCl3 added, and the mixture left 1-2 days at room temperature (method E). The following method (F) gave good yields of I. The solution of rearranged IV, after 2 hrs. at room temperature was distilled at 40-5°/30 min., then stored 1-2 days with 0.02-0.03 mole III, and the products treated as previously described. I were crystallized as colorless needles from MeOH or alc. The following results were obtained (IV, R'' in III, method, % yield, and m.p. of I given): PhMeC:NOH, Et, E, 65, 126°; (p-MeC6H4)MeC:NOH, Et, E, 65, 82°; (p-MeC6H4)MeC:NOH, Me, D, 65, 146°; 2-C10H7CMe:NOH, Et, F, 65, 130°; PhPrC:NOH, Et, E, 72, 106°; PhPrC:NOH, Me, E, 35, 73°; (p-MeC6H4)2C:NOH, Me, F, 73, 128°; (p-MeC6H4)2C:NOH, Et, F, 60, 140°; Ph2C:NOH, Et, D, 55, 157°. Improved yields of I were obtained by using excess II or III.

RX(2) OF 2 D + E ===> F



D E



F
YIELD 75%

RX(2) RCT D 15999-95-8, E 42805-39-0
PRO F 116244-33-2
SOL 67-66-3 CHCl3
NTE Classification: Heterocycle formation; Condensation; N-Acylation; # Conditions: CHCl3 20 deg 1-2days; # Comments: chloroimine reactant not isolated

FILE 'HOME' ENTERED AT 11:20:11 ON 13 DEC 2007

SEARCH HISTORY

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L7              STR
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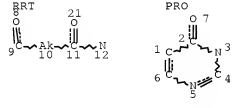

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L11             STR
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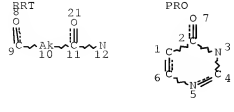

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STEREO ATTRIBUTES: NONE

****MAPPINGS****

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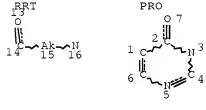
12	N	RRT	5	N	PRO

L12 STR



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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

****MAPPINGS****

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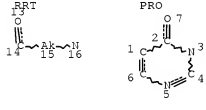

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STEREO ATTRIBUTES: NONE

****MAPPINGS****

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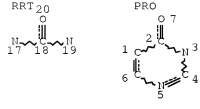

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STEREO ATTRIBUTES: NONE

****MAPPINGS****

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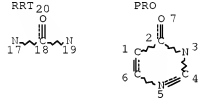

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STEREO ATTRIBUTES: NONE

****MAPPINGS****

NOD	SYM	ROL	NOD	SYM	ROL
5	N	PRO	19	N	RRT
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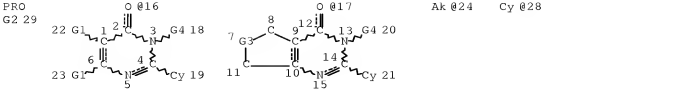
L18 1017 SEA FILE=CASREACT SSS FUL (L10 OR L11 OR L12 OR L13 OR L14 OR L15) NOT L7 (7766 REACTIONS)

L31 STR



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STEREO ATTRIBUTES: NONE
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100.0% DONE 7766 VERIFIED 67 HIT RXNS 13 DOCS
SEARCH TIME: 00.00.01

L7 STR

NODE ATTRIBUTES:
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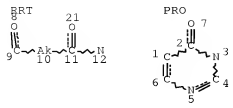

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STEREO ATTRIBUTES: NONE

****MAPPINGS****

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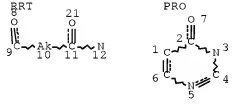
L11 STR



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STEREO ATTRIBUTES: NONE

****MAPPINGS****

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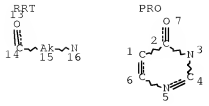
L12 STR



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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

****MAPPINGS****

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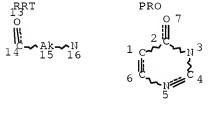

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STEREO ATTRIBUTES: NONE

****MAPPINGS****

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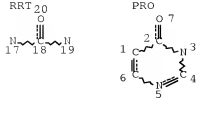

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STEREO ATTRIBUTES: NONE

****MAPPINGS****

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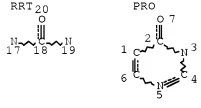

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE

****MAPPINGS****

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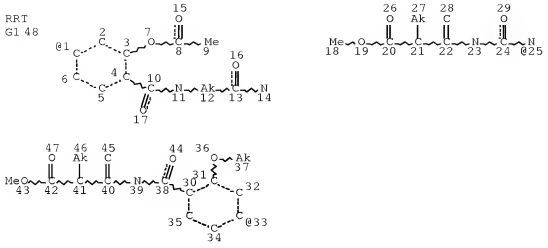
L37 STR



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GGCAT   IS UNS AT 12
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 48

STEREO ATTRIBUTES: NONE
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100.0% DONE   87 VERIFIED   13 HIT RXNS   4 DOCS
SEARCH TIME: 00.00.01

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D SCAN
SEL RN

FILE 'REGISTRY' ENTERED AT 10:14:15 ON 13 DEC 2007
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OR 1655-07-8/BI OR 21615-34-9/BI OR 22396-14-1/BI OR 404-70-6/B
I OR 51756-10-6/BI OR 52721-69-4/BI OR 5538-51-2/BI OR
607-97-6/BI OR 609-14-3/BI OR 611-10-9/BI OR 64-04-0/BI OR
780771-35-9/BI OR 780771-36-0/BI OR 780771-37-1/BI OR 780771-38
-2/BI OR 780771-39-3/BI OR 780771-40-6/BI OR 780771-41-7/BI OR

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                780771-42-8/BI OR 780771-43-9/BI OR 780771-44-0/BI OR 780771-45
                -1/BI OR 780771-46-2/BI OR 780771-47-3/BI OR 780771-48-4/BI OR
                780771-49-5/BI OR 780771-50-8/BI OR 780771-51-9/BI OR 780771-52
                -0/BI OR 780771-54-2/BI OR 780771-55-3/BI OR 780771-56-4/BI OR
                780771-57-5/BI OR 780771-58-6/BI OR 85796-29-8/BI OR 916335-88-
                1/BI)
                D SCAN

     FILE 'STNGUIDE' ENTERED AT 10:19:14 ON 13 DEC 2007

     FILE 'REGISTRY' ENTERED AT 10:34:32 ON 13 DEC 2007
L3              STR
L4           50 SEA SSS SAM L3

     FILE 'CASREACT' ENTERED AT 10:35:14 ON 13 DEC 2007
L5              STR L3
L6           18 SEA SSS SAM L5 (   274 REACTIONS)
L7              STR L3
L8           10 SEA SSS SAM L5 NOT L7 (   161 REACTIONS)
                D QUE
L9              STR L5
L10             STR L5
L11             STR L10
L12             STR L5
L13             STR L12
L14             STR L5
L15             STR L14
L16           5 SEA SSS SAM (L10 OR L11 OR L12 OR L13 OR L14 OR L15) NOT L7 (
                  18 REACTIONS)
                D QUE
L17       22744 SEA SSS FUL (L10 OR L11 OR L12 OR L13 OR L14 OR L15) NOT L7
                (419109 REACTIONS) EXTEND
L18        1017 SEA SSS FUL (L10 OR L11 OR L12 OR L13 OR L14 OR L15) NOT L7 (
                7766 REACTIONS)
                SAVE TEMP JAI920CASRE/A L18
L19         957 SEA ABB=ON  L18/COMPLETE
                SAVE TEMP L19 JAI920CASRE2/A
L20           0 SEA ABB=ON  US2006-551920/AP
L21          29 SEA ABB=ON  SHCHERBAKOVA I?/AU
L22           0 SEA ABB=ON  BALANDRIA M?/AU
L23         101 SEA ABB=ON  HUANG G?/AU
L24           5 SEA ABB=ON  GEOFFROY O?/AU
L25         116 SEA ABB=ON  FOX J?/AU
L26          50 SEA ABB=ON  NAIR S?/AU
L27           3 SEA ABB=ON  (L21 OR L22 OR L23 OR L24 OR L25 OR L26) AND L19
                D SCAN TI
L28           1 SEA ABB=ON  TETRASUB?/TI AND L27
                D BIBI
L29           7 SEA ABB=ON  BALANDRIN M?/AU
L30           3 SEA ABB=ON  (L21 OR L22 OR L23 OR L24 OR L25 OR L26 OR L29)
                AND L19
L31             STR
L32           0 SEA SUB=L19 SSS SAM L31 (     0 REACTIONS)
L33           0 SEA SUB=L18 SSS SAM L31 (     0 REACTIONS)
L34        1017 SEA SUB=L18 SSS FUL L31 (  7766 REACTIONS) EXTEND
L35          13 SEA SUB=L18 SSS FUL L31 (    67 REACTIONS)
                SAVE TEMP L35 JAI920CASRE3/A
L36           3 SEA ABB=ON  L35 AND L30

     FILE 'STNGUIDE' ENTERED AT 10:56:32 ON 13 DEC 2007
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     FILE 'REGISTRY' ENTERED AT 11:05:59 ON 13 DEC 2007

     FILE 'CASREACT' ENTERED AT 11:06:02 ON 13 DEC 2007
L37                STR
L38           0 SEA SUB=L18 SSS SAM L37 (      0 REACTIONS)
L39          17 SEA SUB=L18 SSS FUL L37 (     87 REACTIONS) EXTEND
L40           4 SEA SUB=L18 SSS FUL L37 (     13 REACTIONS)
                  SAVE TEMP L40 JAI920CASRE4/A
L41          13 SEA ABB=ON  (L35 OR L40)
L42           3 SEA ABB=ON  L30 AND L40
L43         720 SEA ABB=ON  L19 AND (PY<2003 OR AY<2003 OR PRY<2003)

     FILE 'STNGUIDE' ENTERED AT 11:15:58 ON 13 DEC 2007

     FILE 'CASREACT' ENTERED AT 11:18:27 ON 13 DEC 2007
L44          10 SEA ABB=ON  L41 NOT L30
L45           9 SEA ABB=ON  L44 AND L43

     FILE 'CASREACT' ENTERED AT 11:19:12 ON 13 DEC 2007
                  D QUE NOS L30
                  D IBIB ABS FHIT L30 1-3

     FILE 'CASREACT' ENTERED AT 11:19:46 ON 13 DEC 2007
                  D STAT QUE L35
                  D STAT QUE L40
L46          10 SEA ABB=ON  (L35 OR L40) NOT L30
                  D IBIB ABS FHIT L46 1-10

     FILE 'HOME' ENTERED AT 11:20:11 ON 13 DEC 2007
                  D STAT QUE L35
                  D STAT QUE L40

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